

Notice of Allowability

Application No.

10/688,529

Examiner

Louis K. Huynh

Applicant(s)

KONISHI, KAZUO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Communication filed 10/17/03.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ The drawings filed on 17 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10/17/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Peter Hochberg (#24603) on August 13, 2004.
3. The application has been amended as follows:

Claim 1 has been replaced with:

1. A device for sealing and packaging cover film onto a tray having open edge and accommodating an item in a mounded fashion, comprising:
 - a pair of endless chains;
 - a plurality of touch bars spanning between the endless chains at equidistant intervals;
 - means for moving the endless chains and the touch bars in unison for pushing and advancing respective trays disposed in said equidistant intervals along an upper surface of a horizontal conveyance path;
 - a general frame moving back and forth reciprocally in a parallel direction with said touch bars and in a defined region of said conveyance path;
 - bridge plates fixed to said general frame for moving back and forth reciprocally in unison with said general frame in said defined region and at the same height as the upper surface of said conveyance path;
 - a sealing base frame disposed surrounding said bridge plates for supporting the open edge of the tray;
 - a lifting mechanism for moving said sealing base frame upwards and downwards about the periphery of said bridge plates in response to the reciprocal movement of said frame;

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sealers fixed to said general frame above said sealing base frame and having the same outline as the open edge of the tray supported on said sealing base frame;

a film conveyance mechanism for moving a band-shaped film between said sealers and said bridge plates, in the same direction as said touch bars;

a film pushing element disposed in an isolated fashion about a periphery of said sealers; and

an endless blade having the same outline as the outline of the tray and disposed surrounding the periphery of said sealers;

wherein, when said lifting mechanism performs an upward movement, said band-shaped film is pressed by said sealing base frame against film pushing elements, and with further upward movement of the lifting mechanism, said band-shaped film is pressed against and welded by said sealers to the open edge of the tray supported on said sealing base, while said band-shaped film is pushed upwards by a to-be-packaged item accommodated in said tray in said mounded fashion, and furthermore, said band-shaped film is pressed against said endless blade and is cut out in accordance with the outline of said tray.

Claim 2 has been replaced with:

2. The device for sealing and packaging cover film onto a tray according to claim 1, further comprising pairs of cooperating upper and lower directing rollers for gripping respective side edges of the band-shaped film;

wherein said pairs of rollers are supported and arranged on an immobile machine platform differing from the general frame at respective sides downstream of said sealing base frame, these rollers on either side being arranged at an inclined angle in such a manner that said band-shaped film is tensioned towards said either side, in the direction of travel thereof; and

wherein, a one-way clutch whereby each roller is able to perform free rotation only in the direction of travel of said band-shaped film is disposed inside each of the directing rollers.

Claim 3 has been replaced with:

3. The device for sealing and packaging cover film onto a tray according to claim 1, further comprising upstream transfer fingers and downstream transfer fingers disposed in said defined region of the conveyance path, wherein said transfer fingers are configured to extend and contract in accordance with the reciprocal movement of said general frame to transfer said trays from said conveyance path upstream of the general frame to said bridge plates and from said bridge plates to said conveyance path downstream of the general frame.

Claim 6 has been replaced with:

6. A device for sealing and packaging cover film onto a tray having open edge and accommodating an item in a mounded fashion, comprising:

- a pair of endless chains;
- a plurality of touch bars spanning between the endless chains at equidistant intervals;
- means for moving the endless chains and the touch bars in unison for pushing and advancing respective trays disposed in said equidistant intervals along an upper surface of a horizontal conveyance path;
- a general frame fixed in a defined region of said conveyance path;
- bridge plates fixed on said general frame in said defined region and at the same height as the upper surface of said conveyance path;
- a sealing base frame disposed surrounding said bridge plates for supporting the open edge of the tray;
- a lifting mechanism for moving said sealing base frame upwards and downwards about the periphery of said bridge plates;
- sealers fixed to said general frame above said sealing base frame and having the same outline as the open edge of the tray supported on said sealing base frame;
- a film conveyance mechanism for moving a band-shaped film between said sealers and said bridge plates, in the same direction as said touch bars;
- a film pushing element disposed in an isolated fashion about a periphery of said sealers; and

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an endless blade having the same outline as the outline of the tray and disposed surrounding the periphery of said sealers;

wherein, when said lifting mechanism performs an upward movement, said band-shaped film is pressed by said sealing base frame against film pushing elements, and with further upward movement of the lifting mechanism, said band-shaped film is pressed against and welded by said sealers to the open edge of the tray supported on said sealing base, while said band-shaped film is pushed upwards by a to-be-packaged item accommodated in said tray in said mounded fashion, and furthermore, said band-shaped film is pressed against said endless blade and is cut out in accordance with the outline of said tray.

4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose and/or teach a device for sealing and packaging cover film onto a tray having open edge and accommodating an item in a mounded fashion wherein the sealers (38) are fixed to the general frame above the sealing base frame (28) that is also movably mounted on the general frame for up and down motions with respect to the general frame such that the sealing base frame (28) supporting the tray (10) presses the film (41) against the film pushing element (46) disposed outside the periphery of the sealers (39) as the sealing base frame moves upwards, the tray and the film are pressed against the sealers (38) as the sealing base frame (28) moves further upwards so that the film is welded to the tray while the product accommodated in the tray in the mounded fashion pushes the film upwards such that wrinkle of the film (41) is minimized at the seal.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

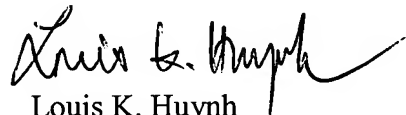
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis K. Huynh whose telephone number is (703) 306-5694. The examiner can normally be reached on M-F from 9:30AM to 5:00PM.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (703) 308-2187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Louis K. Huynh
Patent Examiner
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August 16, 2004